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MARKETING RESEARCH REPORT No. 5

Marketing Charges for Potatoes Sold in Pittsburgh, Pa.

DECEMBER 1949–JUNE 1950

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UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics
Washington, D. C.

MAY 1952

For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington 25, D. C. - Price 20 cents

Assistance in developing procedures for obtaining the information in this bulletin was provided by members of the National League of Wholesale Fresh Fruit and Vegetable Distributors, United Fresh Fruit and Vegetable Association, and National Association of Food Chains, and by the cooperating retailers and wholesalers in Pittsburgh. Representatives of the Market News Service and other divisions of the Fruit and Vegetable Branch of the Production and Marketing Administration also gave advice on procedures. The Washington Agricultural Experiment Station assisted in this study. The author wishes to acknowledge the assistance of H. Wayne Bitting and D. B. DeLoach, under whose direction this study was conducted.

This study was made under authority of the Agricultural Marketing Act of 1946 (RMA, Title II).

MARKETING CHARGES FOR POTATOES SOLD IN PITTSBURGH, PA., DECEMBER 1949-JUNE 1950

By William N. Garrott, Agricultural Economist

CONTENTS

	Page
Introduction	1
Summary	2
Quantities sold and sources	3
Seasonal pattern of potato sales	3
How potatoes are sold	6
Shipping-point trace-backs	6
Methods of movement	8
Sharing of the consumer's dollar	8
Shipping point f.o.b.	9
Transportation	12
Brokerage	13
Wholesalers' margin	13
Retailers' margin	14
Retail pricing policy	19
Types of potatoes and types of stores	19
Retail prices and volume of sales	20
Appendix	22
Scope and method of study	22
Tables	24

INTRODUCTION

This is a report of the charges made at each step in the marketing process for potatoes. It takes into consideration the services rendered by marketing agencies, and the channels through which potatoes moved from producing areas to consumers in Pittsburgh, Pa.

This report provides specific information on marketing margins for potatoes according to area of production and type of potato. Pricing policies and margins are shown for retail stores according to their methods of buying produce. Data in sufficient detail to relate margins and services are not provided by the regular price-reporting agencies. For those interested in improving the marketing of farm products, exact information of the type given in this report is a necessary prerequisite to studies of marketing efficiency.

Facts such as these should be useful to buyers and sellers of fresh fruits and vegetables. Likewise, farmers and shippers may find that the information will help them to become better acquainted with marketing channels, pricing practices, and margins taken by the handlers and service agencies which process and move products from the farm to the consumer. It will also provide farmers and shippers a sound basis for relating services performed to charges made by handlers and service agencies.

With these needs in view, the Bureau of Agricultural Economics, during 1949 and 1950, obtained data on marketing margins, costs, and trade practices for the more important fresh fruits and vegetables sold in Pittsburgh, Pa. Similar studies were carried out in Denver, Colo., Cleveland, Ohio and Charlotte, N.C. This report on potatoes is one of a series of commodity reports to be issued on the results of these studies.

SUMMARY

The study upon which this report is based analyzed the cost of marketing Irish potatoes in Pittsburgh during the 7 months of December 1949 through June 1950. Retail store costs and selling prices were obtained for 4,242 lots, of which 504 were traced from terminal market back to shipping point to obtain applicable marketing charges. Analysis of these data was carried out with reference to type of potato, method of sale, size of store, and season of the year in which sold. The marketing services studied were those applicable to potatoes during movement from the various shipping points to the consumer at the retail store in Pittsburgh. The charges for these marketing services include the retailer's margin, the wholesaler's margin, brokerage, and transportation charges.

Retail prices. The average retail selling price for the 4,242 lots of potatoes sold in the 30 sample stores during the 7 months was 4.6 cents a pound. Retail prices varied by type of potato, type of store, method of sale, and month in which sold.

Retail margins. The average retail margin for all lots was 82 cents per hundredweight. This was equal to 17.8 percent of the consumer's dollar spent for these potatoes. Margins varied according to method of sale. All stores sold consumer packages of potatoes for a lower margin per pound than for bulk sales. This was the only consistent pricing policy revealed by this study.

Wholesale margins. Wholesale margins for the 504 lots of potatoes in all stores averaged 44 cents per hundredweight, or 9.6 percent of the consumer's dollar spent for these potatoes. Wholesale margins varied by type of potato and by States of origin.

Brokerage. Brokerage, including procurement charges, for all of the 504 lots traced back to shipping point averaged 7 cents per hundredweight. This amounted to 1.5 percent of the average retail selling price of these lots.

Transportation. Transportation charges varied according to distance shipped and services rendered. The average charge for moving the 504 lots from shipping point to Pittsburgh was $1.25 per hundredweight, or 27.1 percent of the average retail price for these lots. Of this $1.25, 2 cents was for heat or icing service, and 4 cents for Federal transportation taxes.

F.O.B. shipping point. The average value of the test lots of potatoes at shipping point was $2.02 per hundredweight, or 43.9 percent of the consumer's dollar spent for these lots.

QUANTITIES SOLD AND SOURCES

The 30 sample stores in Pittsburgh submitted data on 4,242 lots 1/ of potatoes representing 1,371,745 pounds. This information pertained to retail store costs and selling prices for potatoes marketed by these stores during the 7 months from December 1, 1949 through June 30,1950. Of this quantity, consumers bought 1,362,621 pounds, and 9,124 pounds were discarded at the retail level as waste. The average retail price was 4.6 cents a pound for all types of potatoes sold. New potatoes averaged 5.7 cents a pound, Idahos averaged 7.2 cents a pound, and other old potatoes averaged 3.9 cents. 2/ Apparently consumers were willing to pay a substantial premium for Idaho potatoes in preference to both new and other old varieties.

Old potatoes, including Idahos, accounted for 70.4 percent of the total volume sold during the period studied. Commercial potato-growing areas supplied most of the potatoes consumed in this market. Four States supplied 96 percent of the new potatoes and 97 percent of the old potatoes. But 23 different States and the Dominion of Canada shipped potatoes to the Pittsburgh market during this period. Though potatoes are bulky, Maine, California, and Florida were major suppliers (table 1).

SEASONAL PATTERN OF POTATO SALES

The volume of potato sales increased each month from December 1949 through March 1950. During this period virtually all of the increased volume was caused by new potatoes arriving on the market. After March the total volume of sales gradually declined until June. The volume of old potatoes decreased each month while the increasing volume of new potatoes all but filled this gap.

1/ A lot represents a specific purchase of any quantity of potatoes by a retailer from a wholesaler during a given day. Such a purchase results in all of the potatoes in an individual lot having a common State of origin, grade, and unit cost.

2/ For the purpose of this report new potatoes are defined as all of those potatoes produced in the Southern half of the United States which are not stored over the winter months. Old potatoes include all others that are produced in the United States and Canada. Idaho potatoes include all potatoes produced in the State of Idaho.

Table 1. - Quantity and value of potatoes sold in Pittsburgh by crops and by States of origin, December 1949-June 1950 1/

NEW CROP

State of origin	Lots	Quantity: Delivered	Quantity: Sold	Quantity: Percentage distribution: New or old crop	Quantity: Percentage distribution: Total	Cost to retailer	Value of sales: Total	Value of sales: Percentage distribution of total	Average retail price per pound 2/
	Number	Pounds	Pounds	Percent	Percent	Dollars	Dollars	Percent	Cents
California	464	201,800	198,662	49.6	14.6	8,796.02	10,394.23	16.6	5.2
Florida	604	135,600	133,407	33.3	9.8	7,071.05	8,427.40	13.5	6.3
Alabama	165	41,250	40,574	10.1	3.0	1,853.48	2,555.44	4.1	6.3
Arizona	58	13,700	13,474	3.4	1.0	644.31	855.56	1.4	6.3
North Carolina	23	7,900	7,773	1.9	.6	225.06	323.04	.5	4.2
Texas	10	2,350	2,312	.6	.2	148.12	154.48	.2	6.7
Virginia	4	1,800	1,771	.4	.1	53.25	77.24	.1	4.4
Louisiana	9	1,700	1,673	.4	.1	89.45	123.12	.2	7.4
South Carolina	2	900	886	.2	.1	30.50	41.03	.1	4.6
Total	1,339	407,000	400,532	100.0	29.5	18,911.24	22,951.54	36.6	5.7

OLD CROP

Maine	1,686	636,930	635,550	66.2	46.6	21,899.93	26,357.11	42.1	4.1
Pennsylvania	494	206,830	206,547	21.5	15.2	5,659.95	6,299.69	10.1	3.1
Idaho	482	62,210	61,591	6.4	4.5	3,444.51	4,416.79	7.1	7.2
New York	81	31,275	31,219	3.3	2.3	775.86	1,003.79	1.6	3.2
Nebraska	71	11,300	11,116	1.2	.8	530.65	724.68	1.2	6.5
Colorado	39	6,200	6,153	.6	.5	290.12	390.06	.6	6.3
Canada	14	3,675	3,666	.4	.3	141.21	171.26	.3	4.7
North Dakota	12	2,150	2,114	.2	.2	89.30	134.90	.2	6.4
New Jersey	1	500	492	.1	3/	13.00	19.19	3/	3.9
Ohio	3	450	450	3/	3/	12.01	14.73	3/	3.3
Illinois	4	400	392	3/	3/	18.00	22.72	3/	5.8
Washington	1	100	98	3/	3/	5.00	6.86	3/	7.0
Wyoming	1	100	98	3/	3/	3.75	5.78	3/	5.9
Maryland	1	75	75	3/	3/	2.90	3.45	3/	4.6
Minnesota	1	50	49	3/	3/	2.50	3.72	3/	7.6
Total	2,891	962,245	959,610	100.0	70.4	32,888.69	39,574.73	63.2	4.1
Not available	12	2,500	2,479		.1	108.06	126.18	.2	5.1
Grand total	4,242	1,371,745	1,362,621		100.0	51,907.99	62,652.45	100.0	4.6

1/ While it was the intent of enumerators to obtain complete information on all potatoes delivered to the 30 sample stores during the period of the study, some of the schedules had to be discarded because of insufficient data. To this extent, coverage of all potatoes delivered to these stores was not obtained. Discarded schedules represented less than 1 percent of the total quantity of potatoes studied.

2/ Not adjusted for waste and spoilage.

3/ Less than 0.05 percent.

The movement followed a seasonal pattern that was expected. Old potatoes in storage tend to be moved to market during the winter months when they do not have to compete with the fresher new product that is marketed in the spring. New potatoes are more perishable than old ones and are moved to market as rapidly as possible after digging.

During the early months of spring new potatoes originated in Florida. As the growing season moved northward with the advance of spring, producing areas in other Southeastern States moved their production to market. By May and June California-grown potatoes became an important competing product on the market (table 2).

Table 2. - Seasonal pattern of new and old potatoes sold in Pittsburgh, by States of origin and by months, December 1949-June 1950

State of origin	December	January	February	March	April	May	June	Total
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
New Potatoes								
Alabama	---	---	---	---	---	14,410	26,164	40,574
Arizona	---	---	---	---	---	---	13,474	13,474
California	1/ 98	1/ 294	1/ 148	---	1,327	83,756	113,039	198,662
Florida	---	1,377	18,050	37,278	60,611	14,911	1,180	133,407
Others	---	---	---	---	2,312	1,575	10,528	14,415
Total New	98	1,671	18,198	37,278	64,250	114,652	164,385	400,532
Old Potatoes								
Idaho	9,730	11,420	10,842	13,934	10,337	4,837	491	61,591
Maine	97,193	101,049	99,537	114,383	112,636	76,941	33,811	635,550
New York	8,510	12,195	2,413	---	7,878	223	---	31,219
Pennsylvania	39,109	42,625	55,281	50,642	18,665	---	225	206,547
Others	10,305	10,285	2,802	295	49	975	2,471	27,182
Total Old	164,847	177,574	170,875	179,254	149,565	82,976	36,998	962,089
Grand total	164,945	179,245	189,073	216,532	213,815	197,628	201,383	1,362,621

1/ While California was classified as a State which produced new potatoes, these quantities were actually old potatoes because they were stored during the winter months.

The prices of new potatoes, Idahos, and other old were related to the volume of marketings of these respective types. Retail prices of new potatoes were highest in January, when they first began to appear on the market and their volume was not large. As volume increased in later months prices declined. Except for a slight rise in May, average retail prices for Idahos remained relatively stable throughout the period. During May the total volume of marketings of potatoes fell rather noticeably. Idahos were practically off the market by June.

Average retail prices for old potatoes fell offslightly during the first 3 months, but gained steadily during the last 4 months, showing an increase of more than 1 cent a pound between February and June 1950 (figs. 1 and 2).

HOW POTATOES ARE SOLD

Any quantity of potatoes could be bought in bulk 3/, while the most common sizes of consumer packages were 10 and 15-pound bags. Where potatoes were packed before shipment to the terminal market, the size of the pack was somewhat dependent upon the State of origin. During the period of this study Maine, Pennsylvania, and New York, which supplied most of the packaged potatoes observed in the test stores, used the 15-pound paper bag almost exclusively. Idaho packaged potatoes were customarily offered in units of 10 pounds each. Generally, any size of container of potatoes, other than the 10 and 15-pound units, was packed at the retail store.

More than 85 percent of the test lots of old potatoes were in 15-pound packages. Almost half the Idaho volume moved in 10-pound containers, while new potatoes were sold almost exclusively in bulk.

SHIPPING-POINT TRACE-BACKS

Selected lots of potatoes were traced from the Pittsburgh market back through the marketing channels to shipping point f.o.b. Approximately 25 percent of the retail lots were selected in an effort to obtain coverage for at least 10 percent of the sample. Trace-back information for lots which originated in Pennsylvania was considered unusable because the enumerators could not get transportation charges for moving potatoes by motortrucks.

Table 3 shows the number of recorded trace-back schedules that contained sufficient information to be usable.

3/ For the purposes of this report bulk sales of potatoes were those of varying quantities for which individual potatoes were selected from displays in bins, baskets, or boxes at the retail store. Packaged sales were those in which a stated quantity of potatoes was offered for sale in varying sized containers, usually a paper bag. Such a container did not give the purchaser a choice of the individual potatoes nor of the quantity purchased except in multiples of the packaged unit. Some potatoes were sold packed as specialty items in boxes, but the volume of product offered in this type of containers was relatively unimportant.

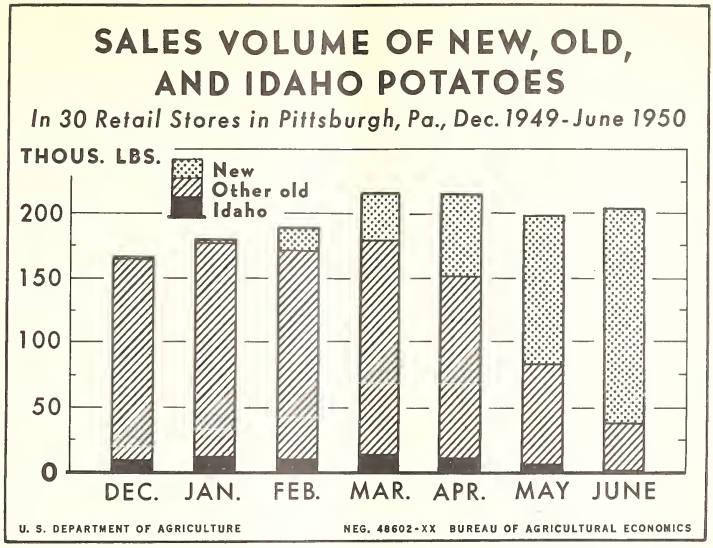

Figure 1.

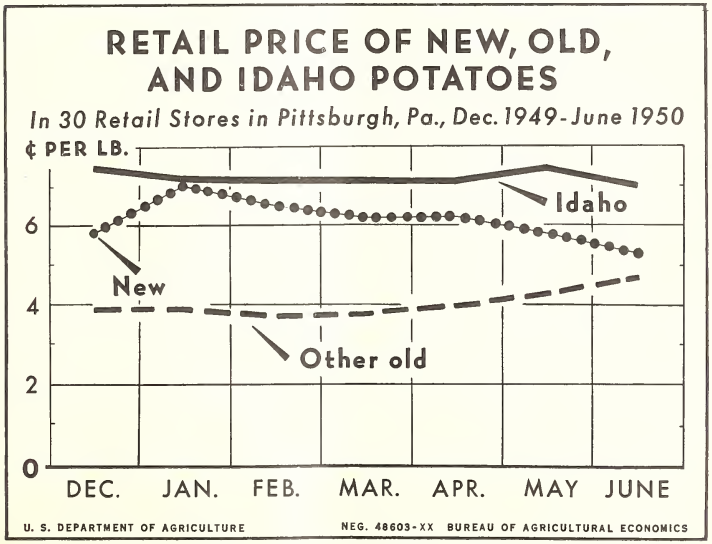

Figure 2.

Table 3. - Retail schedules and number traced back to shipping point from Pittsburgh by State of origin, December 1949-June 1950

State of origin	Retail schedules	Trace backs	
		Quantity	Percentage of retail
	Number	Number	Percent
Maine	1,680	279	16.5
Idaho	482	98	20.3
California	464	48	10.3
Florida	604	44	7.3
Arizona	58	15	25.9
Alabama	165	20	12.1
Total	3,459	504	14.6

METHODS OF MOVEMENT

Three different sales methods were observed. In the order of their importance they were as follows:

(1) Sales based on a price per unit delivered in Pittsburgh, or "delivered sales."

(2) Sales based on a price per unit free on board shipping point, or "f.o.b. sales."

(3) Sales based on a commission to the seller in the terminal market, or "consigned sales."

Table 4 shows the number of retail lots traced through the various methods of sales.

SHARING OF THE CONSUMER'S DOLLAR

How the consumer's dollar was shared by the several marketing agencies depended upon the type of potato handled and the season of the year in which the potatoes were sold. To obtain this picture graphically the test lots were divided into groups that were marketed at about the same season of the year and were approximately similar as to type of potatoes and areas of production. The only areas included were those from which information on retail trace-back was available.

Table 4. - Potatoes marketed by specified methods, Pittsburgh, by State of origin, December 1949-June 1950

State of origin	Total lots	Delivered		F.o.b.		Commission	
		Lots	Percentage of total	Lots	Percentage of total	Lots	Percentage of total
	Number	Number	Percent	Number	Percent	Number	Percent
Maine	279	205	73.5	69	24.7	5	1.8
Idaho	98	52	53.1	46	46.9	---	---
California	48	24	50.0	16	33.3	8	16.7
Florida	44	5	11.4	38	86.4	1	2.2
Alabama	20	14	70.0	6	30.0	---	---
Arizona	15	7	46.7	8	53.3	---	---
Total	504	307	60.9	183	36.3	14	2.8

In following this arrangement of test lots all Maine and Idaho potatoes were grouped separately. California and Arizona potatoes were combined because their marketing season occurred during the same period of the year and their distance from the Pittsburgh market was roughly comparable. Alabama and Florida lots were combined for similar reasons. Figures 3 and 4 and tables 5 and 6 show how much of the consumer's dollar was taken by each of the marketing agencies for the four groups of potato lots.

Shipping Point F.O.B.

Retail trace-back data did not include information on marketing costs prior to shipping point f.o.b. This figure was derived as the residue after all of the known marketing charges had been deducted from the retail price. Generally the shipping point f.o.b. price was related to the retail price, in that the potatoes that sold for the highest average retail price had the highest shipping point f.o.b. price. The California-Arizona combined average was an exception. The high transportation differential tends to be a limiting factor in returns to marketing agencies prior to shipping point. Potatoes originating in the California-Arizona production areas are marketed at a time when the market is heavily supplied with potatoes from the southeastern States. For this reason it is often necessary for the marketing agencies prior to shipping point to accept a smaller return so that their potatoes can compete with others that originate in areas closer to the markets.

Idaho potatoes received the highest dollar shipping point f.o.b. return, $3.39 per hundredweight. This was somewhat higher than the shipping-point price for potatoes from other areas. Some of this higher return is doubtless obtained by marketing a uniformly attractive product, advertised to meet the consumer demand for a baking type of potato. Potatoes from Maine and the California-Arizona production areas received the lowest average shipping point f.o.b. return, $2.00 per hundredweight.

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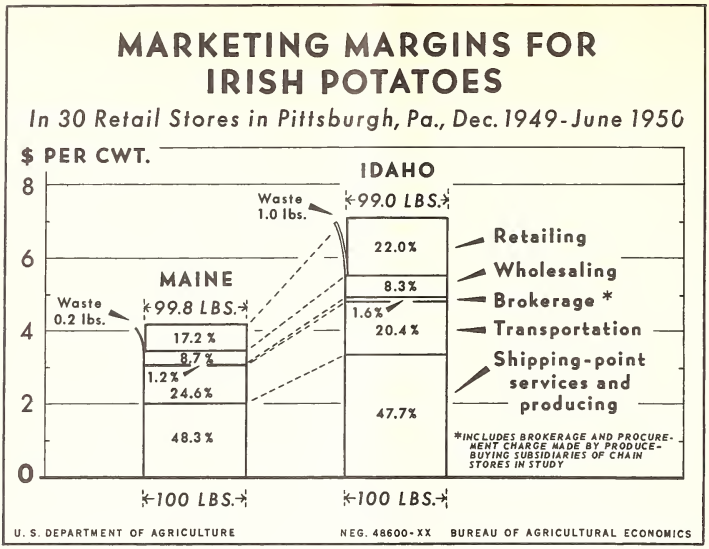

Figure 3

Table 5. - Marketing margins for potatoes sold in Pittsburgh by specified producing areas, average December 1949-June 1950

Item	Marketing margins			
	Idaho		Maine	
	Per cwt.	Percentage of retail price	Per cwt.	Percentage of retail price
	Dollars	Percent	Dollars	Percent
Retail price	1/ 7.10	100.0	2/ 4.14	100.0
Retail margin	1.56	22.0	.71	17.2
Cost delivered retail store	5.54	78.0	3.43	82.8
Wholesale margin	.59	8.3	.36	8.7
F.o.b. car Pittsburgh	4.95	69.7	3.07	74.1
Brokerage	.11	1.6	.05	1.2
Transportation	1.45	20.4	1.02	24.6
F.o.b. shipping point	3.39	47.7	2.00	48.3

1/ Retail price for 99 pounds (100 pounds less 1.0 pound of waste).
2/ Retail price for 99.8 pounds (100 pounds less 0.2 pound of waste).

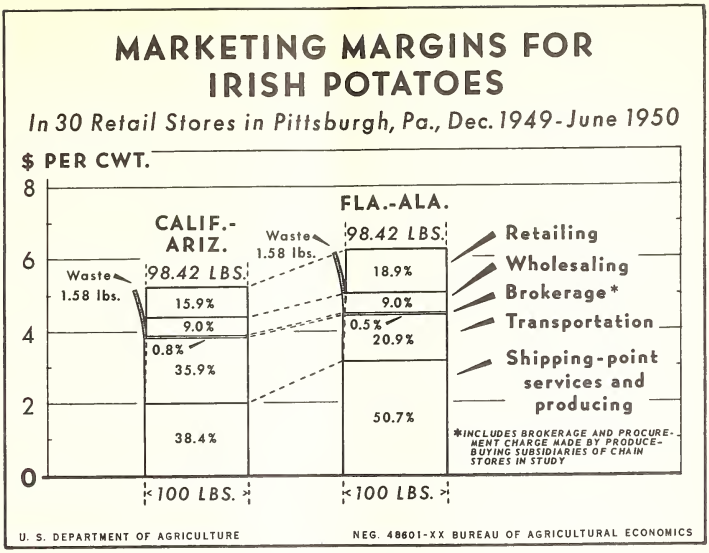

Figure 4

Table 6. - Marketing margins for potatoes sold in Pittsburgh by specified producing areas, average December 1949-June 1950

Item	Marketing margins			
	California-Arizona		Alabama-Florida	
	Per cwt.	Percentage of retail price	Per cwt.	Percentage of retail price
	Dollars	Percent	Dollars	Percent
Retail price	1/ 5.21	100.0	1/ 6.23	100.0
Retail margin	.83	15.9	1.18	18.9
Cost delivered retail store	4.38	84.1	5.05	81.1
Wholesale margin	.47	9.0	.56	9.0
F.o.b. car Pittsburgh	3.91	75.1	4.49	72.1
Brokerage	.04	.8	.03	.5
Transportation	1.87	35.9	1.30	20.9
F.o.b. shipping point	2.00	38.4	3.16	50.7

1/ Retail price for 98.4 pounds (100 pounds less 1.6 pounds of waste).

Apparently potatoes from California and Arizona, despite the higher transportation charges applicable, were able to compete with production areas that are closer to this market and still realize as high a return at shipping point. On a percentage basis, potatoes produced in Florida and Alabama received the largest share of the consumer's dollar, 51 percent, and potatoes from the California-Arizona area the smallest, 38 percent. For all lots combined, the average dollar return at shipping point f.o.b. was $2.02 per hundredweight, or 44 percent of the consumer's dollar.

Transportation

Transportation charges varied according to distance of the producing area from the market and type of service rendered. Gross dollar transportation charges were largest for potatoes produced in California and Arizona. The average price paid for this service for lots originating in the two States was $1.87, or 36 percent of the consumer's dollar. Of this amount, $1.71 was for freight, 11 cents for icing, and 5 cents for Federal transportation taxes. Gross dollar transportation charges were smallest for potatoes shipped from Maine. Charges for this service averaged $1.02 per hundredweight, of which 99 cents was for freight, and 3 cents for Federal transportation taxes. The total freight bill for Maine potatoes accounted for 25 percent of the consumer's dollar spent for them. Table 7 shows the average transportation costs for the 504 lots of potatoes studied by State of origin and by type of service.

Table 7. - Average charges for transporting a hundredweight of potatoes from specified States to Pittsburgh, Pa., December 1949-June 1950.

State of origin	Freight		Heat or ice		Federal tax		Total	
	Cost	Percentage of consumer dollar	Cost	Percentage of consumer dollar	Cost	Percentage of consumer dollar	Cost	Percentage of consumer dollar
	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
Idaho	1.382	19.5	0.032	0.4	0.040	0.5	1.454	20.2
Maine	.994	24.0	---	---	.030	.7	1.024	25.7
California	1.703	32.8	.110	2.1	.052	1.0	1.865	35.9
Arizona	1.727	27.4	.115	1.8	.055	.9	1.897	30.1
Florida	1.238	19.6	.001	.1	.040	.6	1.279	20.3
Alabama	1.239	19.7	.076	1.2	.039	.6	1.354	21.5
All States	1.188	25.8	.023	.5	.036	.8	1.247	27.1

The total transportation margin for moving the 504 sample lots of potatoes from shipping point to Pittsburgh averaged $1.25 per hundredweight, or 27 percent of the consumer's dollar spent for the potatoes. Of this amount, $1.19 was for freight, 2 cents for heat or icing, and 4 cents for Federal transportation taxes. No data were obtained on the cost of transporting potatoes to Pittsburgh by motortruck. For this reason the average transportation charges are indicative only of the rate for movement by rail.

Brokerage

The total brokerage charge for selling potatoes in Pittsburgh was a combination of procurement fees, which some of the chain stores assessed to lots, and of the actual brokerage charges applicable to other lots.

This charge averaged highest for potatoes produced in Idaho, 11 cents per hundredweight, or 1.6 percent of the consumer's dollar. Brokerage charges were smallest for potatoes produced in Florida and Alabama, averaging 3 cents per hundredweight, or 0.5 percent of the consumer's dollar. The brokerage charge for selling the 504 lots in Pittsburgh averaged 7 cents per hundredweight, or 1.5 percent of the consumer's dollar. Of the 504 lots, 184 carried actual brokerage charges and 138 procurement fees. The average charge per hundredweight for this service - 6.8 cents - was found by dividing the number of lots against which actual charges were assessed into the total amount of actual brokerage. By following this same procedure for the procurement fees, the average charge for this service was found to be 17 cents per hundred pounds.

Wholesalers' Margin

The average wholesale margin for all potatoes sold in Pittsburgh in the 30 sample stores was 44 cents per hundredweight, or 9.6 percent of the consumer's dollar. Wholesale margins varied by State of origin and the number of handlers involved. When the share of the consumer's dollar taken by the various segments of the marketing system was calculated by the States in which the potatoes originated, some variation in the size of the wholesalers' margin was observed. Wholesalers took the highest dollar margin for potatoes coming from Idaho - 59 cents per hundredweight - and the smallest dollar margin for potatoes that were grown in Maine - 36 cents per hundredweight. Potatoes produced in the California-Arizona and Florida-Alabama areas had the highest wholesale margins - 9 percent - and Idahos the lowest - 8.3 percent of the consumer's dollar.

Of the 504 lots traced through wholesalers, 396 were sold directly to retailers by the initial carlot receivers, and 108 were sold to secondary handlers who in turn sold to retail stores. When initial carlot receivers sold to retail stores they charged an average of 38 cents per hundredweight for their service. When they sold to secondary handlers this charge averaged 31 cents. When secondary handlers sold to retail stores they made, on the average, an additional charge of 34 cents for their service.

Most of the dealers who handle potatoes at the wholesale level are either initial receivers or secondary handlers. Initial receivers generally are the first to handle the commodity after it arrives in the terminal market. They may sell directly to the retail store or to secondary handlers. Their service consists chiefly of assembling and distributing commodities. The function of the secondary handler consists chiefly of breaking shipments into smaller quantities for the smaller stores, delivering to stores, and extending credit.

Retailers' Margin

The retailers' margin for selling all 4,242 lots of potatoes for which data were obtained, averaged about 18 percent of the consumer's dollar spent for this commodity, or 82 cents per hundredweight. Such over-all figures may be misleading to some because they do not take into account such relevant factors as type of potato, season of the year in which marketed, whether sold packaged or in bulk, and type of store through which they were sold

Some variation in the size of the retailers' margin was apparent when the lots were grouped according to the States in which they originated. The retailers' margin varied from 16 percent of the consumer's dollar, or 83 cents per hundredweight, for potatoes originating in the California-Arizona area to 22 percent, or $1.56 per hundredweight for those grown in Idaho.

Waste and spoilage constituted a loss to the retailer, and when present reduced his margin. The amount of waste in bulk potatoes of all types sold at the retail level averaged 1.58 pounds per hundredweight. No waste was recorded for packaged sales because consumer packages were not opened in the retail stores, and any waste that was present was passed along to the consumer.

In an effort to compare retail margins on the basis of store type, individual lots were separated first into store groups 4/, and then

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4/ Retail stores were grouped according to their method of buying potatoes. Group I consisted of stores whose purchases were made in carload lots. This included the national chain stores, plus one local chain. Group II comprised stores whose purchases were made directly from the initial receiver in the terminal market; this grouping included only local chain stores. Group III consisted of stores that bought their potatoes from both initial receivers and secondary handlers, but owned their own trucks for picking up their purchases of fresh produce. They were the medium and larger sized independently operated stores. Group IV included independently operated stores that bought their potatoes delivered-at-store from service wholesalers or truck jobbers.

according to type of potato and method of sale, whether bulk or packaged. These lots were then arrayed according to the size of their margins. Margins were measured first, in cents per pound, and, second, in percentage of the retail price per pound. These methods showed how the various store groups priced comparable potatoes, both in absolute and in percentage terms.

For all intents and purposes new potatoes were sold in bulk. 5/ Average gross retail dollar margins were 99 cents per hundredweight, or 18 percent of the consumer's dollar spent for new potatoes. The size of margins taken by retail stores followed no particular pricing pattern, either in absolute or percentage terms. Tables 8 and 9 indicate that store groups I and II generally sold a larger volume of their new potatoes at smaller margins than did groups III and IV. This held true both for absolute and percentage margins.

Fifty-four percent of the total volume of Idaho potatoes for which records were obtained were sold in bulk, and the remainder in consumer packages. Average gross dollar retail margins were $1.93 per hundredweight, or 27 percent of the consumer's dollar for bulk sales, and $1.15 per hundredweight, or 16 percent of the consumer's dollar spent for packaged potatoes. Tables 10 and 11 show the percentage of the volume of Idaho potatoes sold at specified dollar and percentage margins. Here the bulk potatoes sold by store groups I and IV covered a wider range of margins than those sold by other groups, while in rather striking contrast, packaged sales were sold through a narrower range. Store group II moved most of its Idaho potatoes, both bulk and packaged, at smaller margins than any of the other groups, while the margins for lots sold by groups II and III for both types covered a somewhat narrower range than those of store groups I and IV.

More than 85 percent of the old potatoes (excluding Idaho) for which data were obtained were sold in consumer packages. Bulk sales accounted for the remainder. Average gross retail dollar margins for bulk sales were $1.24 per hundredweight, or 26 percent of the consumer's dollar spent for this type of potato. Comparable figures for packaged sales were 47 cents per hundredweight, or 13 percent. All four store groups sold their packaged potatoes at lower margins than their bulk sales. For old potatoes sold in bulk the group I and II stores moved more of their volume at smaller margins than the group III and IV stores. For old potatoes sold in packages, store groups III and IV sold as high a proportion of their potatoes at low margins as did store groups I and II. Tables 12 and 13 show the percentage of the volume of old potatoes sold at specified dollar and percentage margins by store groups. Tables 15, 16, and 17 of the Appendix give a detailed tabulation of prices and margins of all types of potatoes by store groups and by months.

5/ Some new potatoes are shipped in consumer packages, but for a number of reasons, the practice is not general. Because of their higher moisture content, they are considered more perishable than old potatoes. From the standpoint of ventilation, paper containers are not as satisfactory as cloth or mesh bags. Cloth bags are considerably more expensive than the paper. Likewise, the unit of purchase of new potatoes by consumers is generally so small (5 pounds or less per purchase) that prepackaging might not be economically feasible.

Table 8. - New potatoes: Percentage volume sold at specified percentage margins by store groups, Pittsburgh, December 1949-June 1950 1/

Gross margin as a percentage of retail price 2/	Group I	Group II	Group III	Group IV
Percent	Percent	Percent	Percent	Percent
Less than 5	11.8	11.6	0.5	0.6
5 - 9	20.8	10.2	---	1.2
10 - 14	34.5	14.9	1.7	4.6
15 - 19	16.1	33.5	10.3	15.6
20 - 24	8.0	17.2	17.9	20.5
25 - 29	4.9	7.1	22.9	25.0
30 - 34	2.0	2.4	26.0	14.2
35 - 39	1.4	1.8	12.6	9.8
40 - 44	.2	.2	3.3	1.6
Over 45	.3	1.1	4.8	6.9
Total	100.0	100.0	100.0	100.0

1/ Bulk sales only.
2/ No allowance for waste and spoilage.

Table 9. - New potatoes: Percentage sold at actual cents margins by store groups, Pittsburgh, December 1949-June 1950 1/

Gross retail margin per pound 2/	Group I	Group II	Group III	Group IV
Cents	Percent	Percent	Percent	Percent
Less than 0.5	30.8	18.2	0.7	1.2
0.5 - 0.9	45.6	37.9	5.7	11.3
1.0 - 1.4	12.7	29.1	24.2	36.9
1.5 - 1.9	5.6	8.1	34.3	23.9
2.0 - 2.4	3.4	3.8	24.1	11.0
2.5 - 2.9	.8	1.8	7.8	7.8
3.0 - 3.4	.4	---	2.0	3.4
Over 3.5	.7	1.1	1.2	4.5
Total	100.0	100.0	100.0	100.0

1/ Bulk sales only.
2/ No allowance for waste and spoilage.

Table 10.- Idaho potatoes: Percentage volume sold at specified percentage margins by store groups, Pittsburgh, December 1949-June 1950

Gross margin as a percentage of retail price	Group I		Group II		Group III		Group IV	
	Bulk 1/	Package	Bulk 1/	Package	Bulk 1/	Package	Bulk 1/	Package
Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Less than 5	0.4	13.6	---	---	---	---	0.8	---
5 - 9	4.3	20.2	1.0	---	---	---	5.9	---
10 - 14	1.0	22.8	3.4	42.4	---	0.8	.8	42.9
15 - 19	18.6	14.2	31.1	57.6	5.7	20.0	2.2	46.4
20 - 24	8.9	26.3	43.8	---	14.6	52.0	5.9	10.7
25 - 29	19.9	2.9	20.7	---	38.4	17.6	17.8	---
30 - 34	29.3	---	---	---	30.6	9.6	34.1	---
35 - 39	15.6	---	---	---	10.0	---	28.1	---
40 - 44	1.0	---	---	---	.7	---	4.4	---
Over 45	1.0	---	---	---	---	---	---	---
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ No allowance for waste and spoilage.

Table 11.- Idaho potatoes: Percentage volume sold at actual dollar-and-cents margins by store groups, Pittsburgh, December 1949-June 1950

Gross dollar retail margin per pound	Group I		Group II		Group III		Group IV	
	Bulk 1/	Package	Bulk 1/	Package	Bulk 1/	Package	Bulk 1/	Package
Cents	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Less than 0.5	3.7	20.8	1.1	---	---	---	0.8	---
0.5 - 0.9	1.0	34.9	3.4	40.9	---	0.8	5.9	10.7
1.0 - 1.4	25.3	32.4	55.2	59.1	10.0	24.0	4.4	78.6
1.5 - 1.9	9.0	8.0	33.4	---	40.9	53.6	10.4	7.1
2.0 - 2.4	35.6	3.9	6.9	---	29.2	21.6	11.8	3.6
2.5 - 2.9	23.4	---	---	---	19.2	---	53.4	---
3.0 - 3.4	1.0	---	---	---	.7	---	13.3	---
Over 3.5	1.0	---	---	---	---	---	---	---
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ No allowance for waste and spoilage.

Table 12. - Old potatoes Idaho excluded: Percentage volume sold at specified percentage margins by store groups, Pittsburgh, December 1949-June 1950

Gross margin as a percentage of retail price	Group I		Group II		Group III		Group IV	
	Bulk 1/	Package	Bulk 1/	Package	Bulk 1/	Package	Bulk 1/	Package
Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Less than 5	12.8	40.5	35.0	0.6	---	0.7	---	1.9
5 - 9	7.2	23.2	---	8.8	2.6	17.7	1.1	13.5
10 - 14	4.8	15.3	27.7	65.0	6.6	21.0	3.5	33.8
15 - 19	44.2	10.1	7.1	19.5	6.8	33.9	11.0	45.5
20 - 24	10.2	8.7	18.6	4.6	15.9	24.8	8.1	4.2
25 - 29	5.0	1.2	7.6	.9	6.1	1.3	19.1	---
30 - 34	11.5	.4	2.5	.6	24.9	.1	15.0	.1
35 - 39	4.1	.1	---	---	14.5	.5	4.3	.1
40 - 44	.2	---	---	---	21.2	---	33.0	.4
Over 45	---	.5	1.5	---	1.4	---	4.9	.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ No allowance for waste and spoilage.

Table 13. - Old potatoes Idaho excluded: Percentage volume sold at actual dollar-and-cents margins by store groups, Pittsburgh, December 1949-June 1950

Gross dollar retail margin per pound	Group I		Group II		Group III		Group IV	
	Bulk 1/	Package	Bulk 1/	Package	Bulk 1/	Package	Bulk 1/	Package
Cents	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Less than 0.5	20.5	72.5	39.6	61.8	9.4	35.5	1.9	42.9
0.5 - 0.9	54.7	24.7	30.7	34.9	19.5	49.5	16.0	54.2
1.0 - 1.4	14.9	2.0	28.2	3.1	7.2	14.7	37.0	1.7
1.5 - 1.9	3.6	---	---	.2	27.8	.1	6.1	.4
2.0 - 2.4	2.2	.3	---	---	27.2	---	6.3	---
2.5 - 2.9	4.1	.5	---	---	7.6	.2	28.0	.4
3.0 - 3.4	---	---	---	---	.2	---	4.5	.4
Over 3.5	---	---	1.5	---	1.1	---	.2	---
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ No allowance for waste and spoilage.

RETAIL PRICING POLICY

The retail pricing policy of a store determines the size of the retail margins taken. Various means are often used to arrive at a pricing policy. Past studies have indicated that some of the following practices often influence the pricing of commodities at the retail level.

(1) A fixed cents per unit mark-up.

(2) A fixed-percentage mark-up of the retail-store cost price.

(3) A fixed-percentage margin based on a retail-store selling price.

(4) A fixed retail selling price per unit through a certain range of delivered store prices. 6/

(5) The practice of maintaining narrow margins and a low selling price in the hope of increasing volume enough to increase profits.

(6) Some stores follow the practice of meeting the price of competing stores when possible.

(7) Still another method is to use the commodity as a "loss-leader" in the hope of attracting traffic to the store to sell other more profitable items that are able to absorb such loss.

(8) Some stores try to adjust their margins on the basis of rent, labor, capital investment, and costs of handling the item.

The stores included in this study may have used a variety of the above methods of arriving at their retail selling prices. There is some evidence, at least, that methods 4,5, and 6 played a part in their retail pricing policy. There was little evidence that the stores attempted to maintain a fixed dollars and cents mark-up or a fixed percentage margin, either on the cost or on the selling price. The scope and nature of this study were not such that any judgment could be passed on the other methods here listed. As might be expected, many operators of retail stores are reluctant to reveal their methods of pricing commodities.

TYPES OF POTATOES AND TYPES OF STORES

As noted previously, there were indications that the potatoes sold in Pittsburgh during the period of this study could be separated into three different types, that is, new, Idaho, and other old. Differing retail prices, marketing seasons, and methods of utilization of the product support this

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6/ For instance, the price of Idaho potatoes might be maintained at 7 cents a pound as long as the cost of the potatoes delivered to the retail store fell between a high of 5 and a low of 4 cents per pound. When this cost figure moved above the upper limit, the retail price would rise, and when it dropped below the lower limit the retail price would fall.

separation. 7/ When stores used a consistent or common pricing policy for all commodities, such practices might be revealed by studying the types separately and comparing observations. But it is quite possible that stores do not follow a consistent pricing policy, but rather vary it according to the value of the product handled.

Different types of stores were studied as were the various types of potatoes sold. Some people are satisfied to visit their favorite store, select the commodities they desire, pay cash, and carry the produce home. Others desire and are willing to bear the expense of deferred payment, delivery, and complementary services. An important factor in the continued success of many independent stores which deal in small volumes at higher prices, is the personal service they offer to their customers.

Considerable variation was found in the quantities of potatoes handled by the different store groups. The volume of all types of potatoes sold showed some difference between groups. The proportion that each group marketed also varied according to types of potatoes and method of sale, whether in bulk or packaged. Table 14 shows the percentage of the volume of all potatoes - new, Idaho, and other old - handled by each of the store groups.

On the basis of quantities sold the store groups ranked the same for the three types of potatoes. When old and Idahos were separated into "packaged" and "bulk" some changes in this order of ranking occurred. The local and national chains (groups I and II) sold most of their volume in packaged form. Group III stores, which included the larger independent operators, divided their sales on a more nearly half and half basis. The small independents sold most of their volume in bulk.

RETAIL PRICES AND VOLUME OF SALES

In general, one would expect average retail prices to be highest in stores that handle the smallest volume, and lowest in those that handle the greatest. This was true only for new potatoes and Idahos sold in consumer packages. For these types of potatoes, retail prices averaged lower for the national and local chain stores (group I and II stores, respectively)

7/ Old potatoes are considered a general-purpose potato and as such seem to be less desirable to consumers "price-wise". New potatoes, early in the spring at least, seem to be adapted to certain types of preparation, such as creaming, that make them more desirable to some consumers than old potatoes. It might even be that old potatoes merely lose some of their appeal toward the latter part of their period of storage. From the standpoint of price, Idaho potatoes are the really outstanding type of potato. They are considered by some to be a better type of potato for baking. Studies have indicated that higher-income groups consume most of their potatoes in baked form. It seems reasonable to believe that a product that appeals to a higher-income group might be able to command a higher price than one which appeals to lower-income groups.

Table 14. - Percentage distribution of potatoes sold, by types and by store groups, Pittsburgh, December 1949-June 1950

Store group	Stores	Percentage of potatoes sold								
		Total	New	Idaho			Other old			
				Bulk	Packaged	Total	Bulk	Packaged	Total
	Number	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Group I.....	7	44.3	53.7	30.2	49.4	39.0	33.2	41.7	40.5
Group II.....	5	17.8	15.3	8.5	23.5	15.4	7.5	20.9	19.0
Group III....	10	24.9	20.6	41.4	22.1	32.6	32.3	25.3	26.3
Group IV.....	8	13.0	10.4	19.9	5.0	13.0	27.0	12.1	14.2
All groups	30	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

while the large independently operated stores of group III priced their lots higher than the chains but lower than the small independents of group IV. This is the general price-volume pattern one would expect to observe. For bulk old potatoes, the general pattern was typical except that the group III stores had the second highest volume and the next to highest price per pound. For packaged old potatoes, the group III stores had the lowest average retail price but the second largest volume. Group IV stores with the lowest average volume had the next to lowest average retail price, and the national and local chains ranking first and third, respectively, on a volume basis, had the highest and next highest average price. Bulk Idaho potatoes followed the general volume-price pattern one would expect, with the exception of store group II, which had the lowest volume and also the lowest average price.

The relation of packaged to bulk retail prices in the case of Idaho and other old potatoes was noteworthy. On the average, Idaho packaged potatoes cost the stores more and sold for slightly less than the bulk product. The average cost to retailers for packaged old potatoes was considerably less than for those in bulk, and the selling price was correspondingly lower.

These price relationships do not consider possible variations in quality. A report of a companion study conducted by the University of Florida on the quality of potatoes sold in the sample stores during a part of the time this study was in progress, is in process of publication.

APPENDIX

Scope and Method of Study

A sample of retail stores within the corporate limits of Pittsburgh, was selected to study representative retail prices for all stores having $35,000 yearly sales or more. 8/ According to trade reports the stores with a sales volume of less than $35,000 handled 12 percent or less of the fresh produce sold in the city.

Complete information was obtained on each lot of potatoes delivered to each store in the sample from December 1949 through June 1950. This information included data on the size, variety, State of origin, brand, method of selling, and type of container used in marketing the potatoes, as well as the purchasing price, the name of the seller from whom purchased, the selling price, the amount of waste in marketing, and the quantity sold.

A sample of the lots of potatoes on which this information was obtained was selected for tracing back through wholesale handlers to shipping-point. Information was obtained from each handler on the specific sample lot with respect to the price paid for the lot, the quantity purchased, the date of purchase, the services he performed, the selling price, and the name of the seller from whom the lot was bought. In this way a complete picture was obtained from each lot in the sample of the marketing channel, and the price and margin were obtained at each point in the marketing process.

An attempt was made to obtain prices at uniform points in the market level. This is particularly important with respect to retail margins. The point in the marketing level at which retail stores take title to potatoes may range all the way from the car door at terminal market to the time the potatoes are delivered at retail stores. When retail stores take title at car door their reported margin includes some of the expenses of the wholesale service such as loading the truck, warehousing, delivery to retail stores, and unloading at retail stores. The retail margin as herein defined includes only the services provided after the potatoes have been delivered to the store. In order to make retail margins on potatoes comparable between the various stores the per hundredweight costs reported by the stores were adjusted to a delivered-at-store basis. An adjustment in cost was required only in the case of the local and national chain stores. The individual chains supplied the necessary cost data to make the adjustment to a delivered-at-store basis. This was done separately for each chain.

The retail stores were separated into 5 groups according to their methods of purchasing potatoes. Group I consisted of stores whose purchases were made in carload lots. This included the national chain stores plus one local chain. Group II comprised stores whose purchases were made

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8/ The data as to volume of sales may not necessarily be representative for the city. Insuring representativeness for volume data would have required a larger number of stores than were required to insure representativeness for price data as variation found in store prices is less than variation in sales volume.

directly from initial receivers 9/ in the terminal market. This grouping included only local chain stores. Group III represented those stores that bought their potatoes from initial receivers and secondary handlers 10/ but owned their own trucks for picking up their purchases of fresh produce. 11/ These stores were the medium-sized and larger independently operated stores. Group IV included those independently operated stores that bought their potatoes delivered-at-store from service wholesalers. 12/ Group V included the independently operated stores that bought their potatoes delivered-at-store from truck jobbers. 13/ After the data were analyzed it was decided to combine groups IV and V as each was composed predominantly of small-volume stores and each bought its potatoes delivered-at-store.

9/ Initial receivers represent those wholesalers who receive potatoes in carload lots. They perform the function of breaking down carlots into smaller units for sale to secondary handlers and the larger retail stores, either local chains or independents.

10/ Secondary handlers represent wholesalers who buy potatoes from initial carlot receivers. Their function is to break down these purchases into smaller units for sale to retail stores.

11/ The independently operated stores in group III do not obtain any price reduction from the wholesaler as a result of hauling the produce to their stores, but they may receive some price concession on the basis of volume purchased. These stores may gain some advantage in the quality of purchases as a result of picking up their produce in the terminal market. There is no practical way of making such a quality comparison in the Pittsburgh study.

12/ Service wholesalers include initial receivers and secondary handlers who make deliveries to the retail stores. These wholesalers have a central business office.

13/ Truck jobbers represent wholesalers who sell only from their trucks, making deliveries direct to retail stores. They have no central business office; they combine selling, delivery, and collection in one operation.

Table 15a - New potatoes: Quantity sold, prices, and gross margin per hundredweight, by retail store groups, Pittsburgh, by months, December 1949-June 1950

Item	Sales		Price per hundredweight			Gross margin as a percentage of retail price
	Quantity	Percentage of total	Retail 1/	Cost 2/	Gross margin	
	Pounds	Percent	Dollars	Dollars	Dollars	Percent
December						
Group I	---	---	---	---	---	---
Group II	---	---	---	---	---	---
Group III	---	---	---	---	---	---
Group IV	98	100.0	5.71	4.50	1.21	21.2
All stores	98	100.0	5.71	4.50	1.21	21.2
January						
Group I	1,131	67.7	6.89	6.80	.09	1.3
Group II	197	11.8	7.68	7.00	.68	8.9
Group III	49	2.9	9.84	6.50	3.34	33.9
Group IV	294	17.6	5.71	4.50	1.21	21.2
All stores	1,671	100.0	6.89	6.40	.49	7.1
February						
Group I	12,347	67.8	6.30	5.30	1.00	15.9
Group II	1,526	8.4	6.50	5.10	1.40	21.5
Group III	3,293	18.1	6.59	4.80	1.79	27.2
Group IV	1,032	5.7	6.59	4.80	1.79	27.2
All stores	18,198	100.0	6.40	5.20	1.20	18.8
March						
Group I	22,428	60.1	5.81	5.10	.71	12.2
Group II	4,277	11.5	6.20	5.10	1.10	17.7
Group III	7,526	20.2	6.50	4.80	1.70	26.2
Group IV	3,047	8.2	6.79	5.30	1.49	21.9
All stores	37,278	100.0	6.10	5.10	1.00	16.4
April						
Group I	38,917	60.6	5.91	5.30	.61	10.3
Group II	8,859	13.8	6.40	5.60	.80	12.5
Group III	11,410	17.7	6.30	4.40	1.90	30.2
Group IV	5,064	7.9	6.79	5.40	1.39	20.5
All stores	64,250	100.0	6.10	5.20	.90	14.8
May						
Group I	67,306	58.7	5.31	4.80	.51	9.6
Group II	16,384	14.3	6.00	5.40	.60	10.0
Group III	20,000	17.4	6.10	4.40	1.70	27.9
Group IV	10,962	9.6	6.40	4.60	1.80	28.1
All stores	114,652	100.0	5.71	4.80	.91	15.9
June						
Group I	73,000	44.4	5.12	4.30	.82	16.0
Group II	30,070	18.3	5.22	4.30	.92	17.6
Group III	40,183	24.4	5.51	3.90	1.61	29.2
Group IV	21,132	12.9	5.41	3.90	1.51	27.9
All stores	164,385	100.0	5.22	4.20	1.02	19.5
Dec. - June						
Group I	215,129	53.7	5.47	4.79	.68	12.4
Group II	61,313	15.3	5.70	4.88	.82	14.4
Group III	82,461	20.6	5.88	4.22	1.66	28.2
Group IV	41,629	10.4	5.97	4.41	1.56	26.1
All stores	400,532	100.0	5.64	4.65	.99	17.6

1/ Amount retailer realized after allowing for waste and spoilage.
2/ Cost delivered at store.

Table 16. - Idaho potatoes: Quantity sold, prices, and gross margin per hundredweight, by method of sale, and by retail store groups, Pittsburgh, by months, December 1949-June 1950

Item	Bulk						Package					
	Sales		Price per hundredweight			Gross margin	Sales		Price per hundredweight			Gross margin
	Quantity	Percentage of total	Retail 1/	Cost 2/	Gross margin	as a percentage of retail price	Quantity	Percentage of total	Retail	Cost 2/	Gross margin	as a percentage of retail price
	Pounds	Percent	Dollars	Dollars	Dollars	Percent	Pounds	Percent	Dollars	Dollars	Dollars	Percent
December												
Group I	1,277	26.0	7.57	5.42	2.15	28.4	2,200	45.6	7.02	6.27	0.75	10.7
Group II	196	4.0	7.28	5.51	1.77	24.3	1,150	23.9	7.50	6.14	1.36	18.1
Group III	2,454	50.0	7.01	5.21	1.80	25.7	1,300	27.0	7.48	5.85	1.63	21.8
Group IV	983	20.0	7.81	5.78	2.03	26.0	170	3.5	7.50	6.50	1.00	13.3
All stores	4,910	100.0	7.32	5.39	1.93	26.4	4,820	100.0	7.27	6.13	1.14	15.7
January												
Group I	1,374	20.4	7.33	5.54	1.79	24.4	2,960	63.1	6.83	6.13	.70	10.2
Group II	492	7.3	6.89	5.60	1.29	18.7	1,200	25.6	7.46	6.14	1.32	17.7
Group III	3,290	48.9	7.01	5.22	1.79	25.5	350	7.5	7.50	5.80	1.70	22.7
Group IV	1,574	23.4	7.24	5.40	1.84	25.4	180	3.8	7.89	6.44	1.45	18.4
All stores	6,730	100.0	7.13	5.36	1.77	24.8	4,690	100.0	7.08	6.12	.96	13.6
February												
Group I	1,718	31.5	7.02	5.40	1.62	23.1	2,540	47.1	6.54	5.96	.58	8.9
Group II	689	12.7	6.81	5.59	1.22	17.9	1,150	21.3	7.46	6.14	1.32	17.7
Group III	2,161	39.6	7.07	5.08	1.99	28.1	1,400	26.0	7.22	5.63	1.59	22.0
Group IV	884	16.2	7.74	5.31	2.43	31.4	300	5.6	7.32	6.10	1.22	16.7
All stores	5,452	100.0	7.13	5.28	1.85	25.9	5,390	100.0	6.96	5.92	1.04	14.9
March												
Group I	3,044	39.0	7.18	5.00	2.18	30.4	3,030	49.4	6.81	5.62	1.19	17.5
Group II	784	10.0	6.79	5.31	1.48	21.8	1,150	18.8	6.90	6.14	.76	11.0
Group III	2,552	32.7	6.84	4.78	2.06	30.1	1,650	26.9	7.15	5.32	1.83	25.6
Group IV	1,424	18.3	7.54	5.28	2.26	30.0	300	4.9	6.97	5.93	1.04	14.9
All stores	7,804	100.0	7.10	5.01	2.09	29.4	6,130	100.0	6.93	5.65	1.28	18.5
April												
Group I	1,177	25.0	7.43	5.07	2.36	31.8	2,680	47.6	6.90	5.71	1.19	17.2
Group II	392	8.3	6.52	5.10	1.42	21.8	1,250	22.2	6.90	6.06	.84	12.2
Group III	1,961	41.7	6.76	4.74	2.02	29.9	1,300	23.1	7.13	5.51	1.62	22.7
Group IV	1,177	25.0	7.69	4.93	2.76	35.9	400	7.1	7.18	5.98	1.20	16.7
All stores	4,707	100.0	7.15	4.90	2.25	31.5	5,630	100.0	6.97	5.76	1.21	17.4

See footnotes at end of table.

Table 16. - Idaho potatoes: Quantity sold, prices, and gross margin per hundredweight, by method of sale, and by retail store groups, Pittsburgh, by months, December 1949-June 1950 - Continued

Item	Bulk						Package					
	Sales		Price per hundredweight			Gross margin as a percentage of retail price	Sales		Price per hundredweight			Gross margin as a percentage of retail price
	Quantity	Percentage of total	Retail 1/	Cost 2/	Gross margin		Quantity	Percentage of total	Retail	Cost 2/	Gross margin	
	Pounds	Percent	Dollars	Dollars	Dollars	Percent	Pounds	Percent	Dollars	Dollars	Dollars	Percent
May												
Group I	1,274	39.3	6.86	5.68	1.18	17.2	550	34.4	8.26	6.51	1.75	22.2
Group II	294	9.1	7.41	5.76	1.65	22.3	750	46.9	7.41	6.29	1.12	15.1
Group III	1,178	36.4	6.95	5.20	1.75	25.2	250	15.6	7.50	6.00	1.50	20.0
Group IV	491	15.2	7.68	5.11	2.57	33.5	50	3.1	6.90	6.00	.90	13.0
All stores	3,237	100.0	7.07	5.43	1.64	23.2	1,600	100.0	7.70	6.31	1.39	18.1
June												
Group I	197	40.1	6.37	6.10	.27	4.2	---	---	---	---	---	---
Group II	---	---	---	---	---	---	---	---	---	---	---	---
Group III	196	39.9	7.09	5.25	1.84	26.0	---	---	---	---	---	---
Group IV	98	20.0	7.68	6.00	1.68	21.9	---	---	---	---	---	---
All stores	491	100.0	6.92	5.74	1.18	17.1	---	---	---	---	---	---
Dec. - June												
Group I	10,061	30.2	7.19	5.31	1.88	26.1	13,960	49.4	6.87	5.94	.93	13.5
Group II	2,847	8.5	6.87	5.46	1.41	20.5	6,650	23.5	7.26	6.14	1.12	15.4
Group III	13,792	41.4	6.95	5.05	1.90	27.3	6,250	22.1	7.26	5.59	1.67	23.0
Group IV	6,631	19.9	7.58	5.32	2.26	29.8	1,400	5.0	7.28	6.12	1.16	15.9
All stores	33,331	100.0	7.15	5.22	1.93	27.0	28,260	100.0	7.07	5.92	1.15	16.3

1/ Amount retailer realized after allowing for waste and spoilage.
2/ Cost delivered at store.

Table 17. - Old potatoes, Idaho excluded: Quantity sold, prices, and gross margin per hundredweight, by method of sale and by retail store groups, Pittsburgh, by months, December 1949-June 1950

Item	Bulk						Package					
	Sales		Price per hundredweight			Gross margin	Sales		Price per hundredweight			Gross margin
	Quantity	Percentage of total	Retail 1/	Cost 2/	Gross margin	as a percentage of retail price	Quantity	Percentage of total	Retail	Cost 2/	Gross margin	as a percentage of retail price
	Pounds	Percent	Dollars	Dollars	Dollars	Percent	Pounds	Percent	Dollars	Dollars	Dollars	Percent
December												
Group I	11,978	45.8	4.61	3.61	1.00	21.7	53,325	41.4	3.68	3.36	0.32	8.7
Group II	1,524	5.8	6.26	5.30	.96	15.3	24,300	18.9	3.77	3.23	.54	14.3
Group III	8,459	32.3	5.24	3.53	1.71	32.6	35,260	27.3	3.72	3.07	.65	17.5
Group IV	4,226	16.1	5.00	3.20	1.80	36.0	16,045	12.4	3.41	2.88	.53	15.5
All stores	26,187	100.0	4.97	3.61	1.36	27.4	128,930	100.0	3.68	3.20	.48	13.0
January												
Group I	9,435	35.5	3.83	3.27	.56	14.6	65,275	46.8	3.71	3.28	.43	11.6
Group II	1,474	5.5	6.43	5.57	.86	13.4	27,575	19.8	3.92	3.41	.51	13.0
Group III	8,064	30.3	5.57	3.70	1.87	33.6	32,425	23.2	3.58	3.02	.56	15.6
Group IV	7,621	28.7	4.95	3.26	1.69	34.1	14,285	10.2	3.57	3.03	.54	15.1
All stores	26,594	100.0	4.82	3.53	1.29	26.8	139,560	100.0	3.71	3.22	.49	13.2
February												
Group I	6,016	29.0	3.98	3.28	.70	16.6	59,940	43.0	3.55	3.37	.18	5.1
Group II	344	1.7	4.65	3.82	.83	17.8	26,375	19.0	3.81	3.37	.44	11.5
Group III	7,800	37.7	4.61	3.19	1.42	30.8	36,815	26.4	3.43	2.84	.59	17.2
Group IV	6,543	31.6	4.95	3.22	1.73	34.9	16,200	11.6	3.38	2.91	.47	13.9
All stores	20,703	100.0	4.53	3.23	1.30	28.7	139,330	100.0	3.55	3.18	.37	10.4
March												
Group I	7,568	32.9	3.90	3.27	.63	16.2	59,675	41.9	3.75	3.07	.68	18.1
Group II	3,814	16.6	3.61	3.38	.23	6.4	29,100	20.5	3.82	3.33	.49	12.8
Group III	5,886	25.6	4.55	3.16	1.39	30.5	37,995	26.7	3.46	2.90	.56	16.2
Group IV	5,732	24.9	4.91	3.25	1.66	33.8	15,550	10.9	3.49	3.01	.48	13.8
All stores	23,000	100.0	4.27	3.25	1.02	23.9	142,320	100.0	3.66	3.07	.59	16.1
April												
Group I	4,839	29.3	4.25	3.44	.81	19.1	51,655	42.1	3.93	3.61	.32	8.1
Group II	837	5.1	4.18	3.50	.68	16.3	24,850	20.3	4.03	2.68	1.35	33.5
Group III	5,480	33.1	4.48	3.27	1.21	27.0	29,440	24.0	3.76	3.20	.56	14.9
Group IV	5,387	32.5	5.15	3.37	1.78	34.6	16,740	13.6	3.88	3.26	.62	16.0
All stores	16,543	100.0	4.62	3.36	1.26	27.3	122,685	100.0	3.90	3.27	.63	16.2

See footnotes at end of table.

Table 17. - Old potatoes, Idaho excluded: Quantity sold, prices, and gross margin per hundredweight, by method of sale and by retail store groups, Pittsburgh, by months, December 1949-June 1950 - Continued

Item	Bulk						Package					
	Sales		Price per hundredweight			Gross margin	Sales		Price per hundredweight			Gross margin
	Quantity	Percentage of total	Retail 1/	Cost 2/	Gross margin	as a percentage of retail price	Quantity	Percentage of total	Retail	Cost 2/	Gross margin	as a percentage of retail price
	Pounds	Percent	Dollars	Dollars	Dollars	Percent	Pounds	Percent	Dollars	Dollars	Dollars	Percent
May												
Group I	2,016	18.1	4.40	3.43	0.97	22.0	21,895	32.7	4.29	3.83	0.46	10.7
Group II	1,477	13.3	4.83	3.49	1.34	27.7	18,025	26.9	4.17	3.05	1.12	26.9
Group III	3,791	34.1	4.90	3.37	1.53	31.2	17,625	26.3	4.11	3.38	.73	17.8
Group IV	3,835	34.5	4.80	3.64	1.16	24.2	9,475	14.1	4.23	3.61	.62	14.7
All stores	11,119	100.0	4.76	3.49	1.27	26.7	67,020	100.0	4.20	3.47	.73	17.4
June												
Group I	1,227	21.4	4.71	3.82	.89	18.9	9,700	31.5	4.69	4.30	.39	8.3
Group II	295	5.1	4.60	4.17	.43	9.3	11,175	36.3	4.62	4.03	.59	12.8
Group III	2,509	43.8	5.69	4.13	1.56	27.4	5,105	16.6	4.48	3.78	.70	15.6
Group IV	1,701	29.7	5.16	4.16	1.00	19.4	4,795	15.6	4.60	3.92	.68	14.8
All stores	5,732	100.0	5.27	4.08	1.19	22.6	30,775	100.0	4.62	4.05	.57	12.3
Dec. - June												
Group I	43,079	33.2	4.17	3.41	.76	18.2	321,465	41.7	3.73	3.39	.34	9.1
Group II	9,765	7.5	4.75	4.08	.67	14.1	161,400	20.9	3.90	3.25	.65	16.7
Group III	41,989	32.3	4.99	3.43	1.56	31.3	194,665	25.3	3.59	3.05	.54	15.0
Group IV	35,045	27.0	4.97	3.34	1.63	32.8	93,090	12.1	3.61	3.13	.48	13.3
All stores	129,878	100.0	4.69	3.45	1.24	26.4	770,620	100.0	3.77	3.24	.47	12.7

1/ Amount retailer realized after allowing for waste and spoilage.
2/ Cost delivered at store.

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